



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2014-0625; Directorate Identifier 2014-NM-044-AD; Amendment 39-18343; AD 2015-25-05]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc. Model CL-600-2A12 (CL-601) and CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. This AD was prompted by a report of an aft equipment bay fire due to chafing and subsequent arcing of the integrated drive generator (IDG) power cables. Additionally, we have received several reports of broken support brackets of the hydraulic line. This AD requires a one-time inspection of the IDG power cables for chafing, and for any cracked or broken support bracket of the hydraulic line; and corrective actions if necessary. We are issuing this AD to detect and correct broken support brackets of the hydraulic lines, which could result in inadequate clearance between the IDG power cables and hydraulic lines and chafing of the IDG power cables, and consequent high energy arcing and an uncontrolled fire in the aft equipment bay.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at [http://www.regulations.gov/#!docketDetail;D= FAA-2014-0625](http://www.regulations.gov/#!docketDetail;D=FAA-2014-0625) or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Bombardier, Inc., 400 Côte Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-85-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0625.

**FOR FURTHER INFORMATION CONTACT:** Assata Dessaline, Aerospace Engineer, Avionics and Service Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone (516) 228-7301; fax (516) 794-5531.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc. Model CL-600-2A12 (CL-601) and CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. The NPRM published in the Federal Register on September 17, 2014 (79 FR 55673).

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2014-05, dated January 20, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

There has been one reported case on the CL-600-2B19 aeroplane of an aft equipment bay fire occurring due to arcing of chafed integrated drive generator (IDG) power cables. Additionally, the hydraulic line support brackets located at the fuselage station (FS) 672 and FS 682 on a CL-600-2B19 aeroplane could result in inadequate clearance between the IDG power cables and hydraulic lines, potentially resulting in chafing of the IDG power cables. Chafed IDG power cables can generate high energy arcing, which can result in an uncontrolled fire in the aft equipment bay.

It was found that a similar configuration exists on models CL-600-2A12 and CL-600-2B16 aeroplanes. Therefore, a similar unsafe condition exists.

This [Canadian] AD mandates the detailed visual inspection and, if required, rectification of the IDG power cables and hydraulic line support bracket.

Required corrective actions include repair or replacement of the IDG power cable if any chafing is found, and replacement of any cracked or broken support bracket. You may examine the MCAI in the AD docket on the Internet at [http://www.regulations.gov/#!documentDetail;D= FAA-2014-0625-0003](http://www.regulations.gov/#!documentDetail;D=FAA-2014-0625-0003).

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (79 FR 55673, September 17, 2014) and the FAA's response to each comment.

### **Request to Correct Typographical Error**

Bombardier asked that one of the service bulletin references identified in the "Relevant Service Information" section of the NPRM (79 FR 55673, September 17, 2014) be changed to correct a typographical error. Bombardier Service Bulletin "604-0625," as identified in the "Relevant Service Information" section, should be identified as Bombardier Service Bulletin "601-0625."

We agree with the commenter for the reason provided, and we have changed this reference to correctly specify Bombardier Service Bulletin 601-0625 throughout this final rule.

### **Request to Clarify Credit Provisions**

Bombardier asked that we clarify the language in paragraph (h) of the proposed AD, "Credit for Previous Actions." Bombardier stated that the current language may cause some confusion because the content is not clear.

We acknowledge the commenter's concern, and we provide the following clarification for the credit language used in paragraph (h) of this AD. Paragraph (h) of this AD matches the intent of the last two paragraphs in the "Corrective Actions" section of Canadian AD CF-2014-05, dated January 20, 2014. Both this FAA AD and the Canadian AD give credit for accomplishing Bombardier Service Bulletins 605-24-007, 604-24-026, and 601-0625, all dated September 18, 2012, but only if Service Request for Product Support Action (SRPSA) 27512, SRPSA 30806, SRPSA 32727, SRPSA 32864, or SRPSA 33161 has not been done.

#### **Clarification of Airplane Models**

We have included the airplane models identified in the service information in the "Related Service Information under 1 CFR part 51" section, and paragraphs (g)(1), (g)(2), and (g)(3) of this AD (79 FR 55673, September 17, 2014), for clarification.

#### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (79 FR 55673, September 17, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 55673, September 17, 2014).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

#### **Related Service Information under 1 CFR part 51**

Bombardier has issued the following service information:

- Bombardier Service Bulletin 605-24-007, Revision 01, dated January 13, 2014 (for Model CL-600-2B16 airplanes (CL-604 Variant));
- Bombardier Service Bulletin 604-24-026, Revision 01, dated January 13, 2014 (for Model CL-600-2B16 airplanes (CL-604 Variant)); and
- Bombardier Service Bulletin 601-0625, Revision 01, dated January 13, 2014 (for Model CL-600-2A12 (CL-601) and CL-600-2B16 airplanes (CL-601-3A and CL-601-3R Variants)).

This service information describes procedures for a one-time inspection of the IDG power cables for chafing, and for any cracked or broken support bracket of the hydraulic line; and corrective actions if necessary. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **Costs of Compliance**

We estimate that this AD affects 95 airplanes of U.S. registry.

We also estimate that it takes about 1 work-hour per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$8,075, or \$85 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition repair of chafed power cables or cracked or broken support brackets, as specified in this AD.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2014-0625>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive



(AD):

**2015-25-05 Bombardier, Inc.:** Amendment 39-18343; Docket No. FAA-2014-0625;  
Directorate Identifier 2014-NM-044-AD.

**(a) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF  
PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc. airplanes identified in paragraphs (c)(1),  
(c)(2), and (c)(3) of this AD, certificated in any category.

(1) Model CL-600-2A12 (CL-601) airplanes, serial numbers 3001 through 3066  
inclusive.

(2) Model CL-600-2B16 (CL-601-3A, CL-601-3R Variants) airplanes, serial  
numbers 5001 through 5194 inclusive.

(3) Model CL-600-2B16 (CL-604 Variant) airplanes, serial numbers 5301 through  
5665 inclusive, and 5701 through 5934 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 24, Electrical Power.

**(e) Reason**

This AD was prompted by a report of an aft equipment bay fire due to chafing and  
subsequent arcing of the integrated drive generator (IDG) power cables. Additionally, we

have received several reports of broken support brackets of the hydraulic lines. We are issuing this AD to detect and correct broken support brackets of the hydraulic lines, which could result in inadequate clearance between the IDG power cables and hydraulic lines and chafing of the IDG power cables, and consequent high energy arcing and an uncontrolled fire in the aft equipment bay.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) One-Time Inspection and Corrective Actions**

Within 400 flight hours or 18 months after the effective date of this AD, whichever occurs first: Perform a one-time detailed inspection of the IDG power cables for chafing between the cables and the adjacent hydraulic and pneumatic lines, and for any cracked or broken support bracket of the hydraulic lines, in accordance with the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD. If any chafing of the power cables or any cracked or broken support bracket is found, before further flight, repair or replace, as applicable, in accordance with the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD.

(1) Bombardier Service Bulletin 605-24-007, Revision 01, dated January 13, 2014 (for Model CL-600-2B16 airplanes (CL-604 Variant)).

(2) Bombardier Service Bulletin 604-24-026, Revision 01, dated January 13, 2014 (for Model CL-600-2B16 airplanes (CL-604 Variant)).

(3) Bombardier Service Bulletin 601-0625, Revision 01, dated January 13, 2014

(for Model CL-600-2A12 (CL-601) and CL-600-2B16 airplanes (CL-601-3A and CL-601-3R Variants)).

**(h) Credit for Previous Actions**

This paragraph provides credit for action required by paragraph (g) of this AD, if the conditions specified in both paragraphs (h)(1) and (h)(2) of this AD are met.

(1) The action was performed before the effective date of this AD using Bombardier Service Bulletin 605-24-007, Bombardier Service Bulletin 604-24-026, or Bombardier Service Bulletin 601-0625, all dated September 18, 2012. This service information is not incorporated by reference in this AD.

(2) The action specified in Service Request for Product Support Action (SRPSA) 27512, SRPSA 30806, SRPSA 32727, SRPSA 32864, or SRPSA 33161 has not been done.

**(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the New York ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5553. Before using any approved AMOC, notify

your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, Engine and Propeller Directorate, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(j) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2014-05, dated January 20, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2014-0625-0003>.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (k)(4) of this AD.

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 605-24-007, Revision 01, dated January 13, 2014.

(ii) Bombardier Service Bulletin 604-24-026, Revision 01, dated January 13, 2014.

(iii) Bombardier Service Bulletin 601-0625, Revision 01, dated January 13, 2014.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514 855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington on December 8, 2015.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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